STATE of DELAWARE

SINGLE POINT OF CONTACT - SPOC

INTERGOVERNMENTAL REVIEW OF FEDERAL PROGRAMS

Office of Management and Budget

Haslet Building, 3rd Floor, Dover, Delaware 19901 (302) 739-4206

| STATE APPLICATION IDENTIFIER; | | | | | | | | |
|---|--|---------------|---------------------------|----------|------|--|--|--|
| • | | SPOC use ONLY | Month | Reviewer | CC's | | | |
| | 1 | | | | | | | |
| Applicant Project Title: State Clean Diesel Gr. | ant | | | | | | | |
| 3. Applicant Department: Delaware Department and Environr | Division of Air Management | r & Waste | | | | | | |
| 5. Applicant Address: 156 South State St, Kent County, Dover, DE 19901 | | | | | | | | |
| 6. Contact Person: Philip Wheeler 7. Contact Person's Phone Number: 739-9402 | | | | | | | | |
| 8. Signature of Secretary or Agency Head (for state agencies) or Chief Administrator (for all other applicants) | | | | | | | | |
| Federal Grant Department: U. S. EPA Region III | 9. Federal Grant Department: U. S. EPA Region III 10. Federal Sub-Agency: | | | | | | | |
| 11. Federal Contact Person: Paula Krall | | 12. Pi | none Number: (215) 814-20 | 067 | | | | |
| 13. Address: 1650 Arch Street, Philadelphia, PA 19 | 9103-2029 | | | | | | | |
| | 14. Federal Program Title: Recovery Act Funding for National Clean Diesel Grant Program 15. FEDERAL CATALOG NO: (CFDA) | | | | | | | |
| Retrofit Municipal and State Fleets with Clean Air Technology (Diesel Particulate Filters) 17. Will funds be utilized for any technology initiatives? Yes X No If so, Business Case Number and brief project summary: | | | | | | | | |
| 18. Measurable Objectives: a. What were last year's objectives? n/a | | | | | | | | |
| b. Were these objectives met? (If not, please explain why) n/a | | | | | | | | |
| c. What are this year's objectives? | | | | | | | | |
| Reduce diesel soot emissions by 90% on 337 municipal and state heavy duty diesel trucks Reduce diesel soot emissions by 90% on 57 school buses Reduce diesel soot emissions by 20% on 26 non-road DNREC state park vehicles | | | | | | | | |
| If more space is needed, please attach a separate sheet of paper) | | | | | | | | |

| | many years has this project n funded?: | 21. If this project was funde | d last year, how much fede | eral money was |
|--|---|---|---|---------------------------------------|
| Fro 4/28/2009 | n/a | awarded?: | | |
| | | <u>'</u> | | |
| To: 9/30/2010 | | | | |
| 22. Source of funding for this application: | | | D | oliars |
| a. Federal grant | | | 4.62 | 25,000 |
| b. Other federal funds (Specify source of funding) | | | | |
| c. Required state contribution | | | | |
| (Specify source of funding) d. Discretionary state contribution | | | | · · · · · · · · · · · · · · · · · · · |
| (Specify source of funding) | | | | |
| e. Required local contribution | | | | |
| (Specify source of funding) | | | İ | |
| f. Other non-federal funds | | | | |
| (Specify source of funding) | | | | 19 |
| TOTAL | | | 4,62 | 25,000 |
| | Federal | State | Other | Total |
| 23. Budget by cost category and source: | Funds | Funds | Funds | Funds |
| Salaries & Fringe Benefits | 58,631 | | | 58,631 |
| Personal or Contractual Services | 9,330 | | | 9,330 |
| Travel | 1,898 | | | 1,898 |
| Supplies & Materials | 7,890 | | | 7,890 |
| Capital Expenditures | 4,519,920 | | | 4,519,920 |
| Audit Fees | 13,875 | | | 13,875 |
| Indirect Costs | 13,456 | | | 13,456 |
| Other | | | | 0 |
| TOTAL | 4,625,000 | 0 | 0 | 4,625,000 |
| 24. How many positions are required for t | he project? (Exclude casua | al/seasonal employees) | | |
| Breakdown of pos | sitlons(s) | Authorized in State Budget | New Positions Required | Total |
| Paid for out of federal funds | | 0 | 0 | |
| Paid for out of General Funds | | 0 | 0 | |
| Paid for out of state special funds | | 0 | 0 | |
| Paid for out of bond/local/other funds | | 0 | 0 | |
| TOTAL | | 0 | 0 | 0 |
| 25. PLEASE NOTE: On a separate plece other) and the full-time equivalent for grant funds positions within other dep grant please indicate the grant sou | positions required. Please in partments, divisions and/or of | on number, grade, yearly sala dentify the new positions by | ary and percent of funding obtaining an asterisk before t | (federal, state, local, |

POSITIONS ARE CURRENT POSITIONS THAT WILL BE REALLOCATED BY TIME WORK! SEE ATTACHED PERSONNEL SALARIES

Factors
Indirect costs 0.3249
Audit 0.003

| 19. Grant Period: | | many years has th | nis project | 21. If this proj | | st year, how muc | h federal money was | |
|---|--------------------------|--|-------------------|---------------------------------------|---------------------------------------|--|---|------------------|
| From: | | | | | | | | |
| То: | | | | | | | | |
| | | | | <u> </u> | | | | |
| 22. Source of funding for this a | pplication: | | | | | | Dollars - Year 1 | Dollars - Year 2 |
| a. Federal grant | | | | | | | | |
| b. Other federal funds | | | | | | | | |
| (Specify source of fundi | | | | | | | | |
| c. Required state contribu | | | | | | | | |
| (Specify source of fundi | | | | | | ···· | - | |
| d. Discretionary state conf | | | | | | | | |
| (Specify source of fund) | | | | | | | · · · · · · · · · · · · · · · · · · · | |
| e. Required local contribu | | | | | | | | |
| (Specify source of funding | | | | | | | | |
| f. Other non-federal funds | | | | | | | | |
| (Specify source of funding | ng) | | | | | | | |
| | | | | | · | · | 0 | 0 |
| TOTAL | | | | | | | | 0 |
| | . 1 | Federal | Funds | State | Funds | Other | Tota | Funds |
| 23. Budget by cost category an | d source: | Year 1 | Year 2 | Year 1 | Year 2 | Funds | Year 1 | Year 2 |
| Salaries & Fringe Benefits | | | | | | | O | 0 |
| Personal or Contractual Se | ervices | | | | | | 0 | . 0 |
| Travel | | | | | | | 0 | |
| Supplies & Materials | | | | | | | 0 | 0 |
| Capital Expenditures | | | | | | | 0 | 0 |
| Audit Fees | | : | | | | | 0 | 0 |
| Indirect Costs | | | | | | | 0 | O |
| Other | | | | | | | 0 | 0 |
| SUB-TOTAL | | 0 | 0 | 0 | 0 | 0 | 0 | . 0 |
| TOTAL | | 0 | | | 0 | 0 | | 0 |
| 24. How many positions are red | quired for th | ne project? (Excl | ude casual/sea | sonal employe | es) | | | |
| Breakdown o | of positions | (s) | | | Author | ized in Budget | New Positions Required | Total |
| Paid for out of federal fund | s | | | | State | Judget | Required | 0.0 |
| Paid for out of General Fur | nds | | | | | | | 0.0 |
| Paid for out of state specia | l funds | | | · · · · · · · · · · · · · · · · · · · | | | | 0.0 |
| Paid for out of bond/local/o | ther funds | | | | | | | 0.0 |
| TOTAL | | | | | 0. | .0 | 0.0 | 0.0 |
| 25. PLEASE NOTE: On a sepa other) and the full-time equ grant funds positions within grant please indicate the | ivalent for other dep | positions required artments, division | i. Please identii | y the new posit | early salary and pations by placing a | ercent of funding n asterisk before | (federal, state, local, the positon title. If this | |

| 19. Grant Period: | | w many year en funded?: | s has this pro | ject | 21. If this payarde | | unded last ye | ear, how mu | ich federal money | was | |
|---|-----------------------|--------------------------------|------------------------|--------------------------|---------------------|----------------|---------------|----------------|---------------------------|---------------------------------------|------------------|
| From: | 500 | on rundou r. | | | awarac | · · · | | | | | |
| То: | | | | | | | | | | | |
| 22. Source of funding for this ap | plication | n: | | | | | | | Dollars - Year 1 | Dollars - Year 2 | Dollars - Year 3 |
| a. Federal grant | | | | | | | | | | | |
| b. Other federal funds | | | | | | | | | | | |
| (Specify source of funding | | | | | | | | | | | |
| c. Required state contributi (Specify source of funding | | | | | | | | | | | |
| d. Discretionary state contr | | | | | | | | | | | |
| (Specify source of funding | | | | | | | | · | | | |
| e. Required local contributi | | | | | | | | | | | |
| (Specify source of funding f. Other non-federal funds | ng) | | | | | | | | | · · · · · · · · · · · · · · · · · · · | <u> </u> |
| (Specify source of funding | ng) | | | | | | | | | e . | |
| SUB-TOTAL | - | | | | | | | | | | |
| TOTAL | <u></u> | | | | | | | | 0 | 0 | 0 |
| | | | | | | | | | I | | |
| 23. Budget by cost category and | d sour | Fe Year 1 | ederal Funds Year 2 | s _{Year 3} | Year 1 | State Funds | s Year 3 | Other Funds | Year 1 | Total Funds Year 2 | Year 3 |
| Salaries & Fringe Benefits | | | | | | | | 0 | 0 | 0 | 0 |
| Personal or Contractual Sec | rvices | | | | | | | 0 | 0 | 0 | 0 |
| Travel | | | | | | | | 0 | 0 | 0 | 0 |
| Supplies & Materials | | | • | | | | | 0 | 0 | 0 | Ö |
| Capital Expenditures | | | | | | | | 0 | 0 | . 0 | 0 |
| Audit Fees | | | | | | | | 0 | 0 | 0 | 0 |
| Indirect Costs | | | | | | | | 0 | 0 | 0 | 0 |
| Other (In Kind) | | | | | | | | 0 | 0 | 0 | 0 |
| SUB-TOTAL | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | | | 0 | | | 0 | | | | 0 | |
| 24. How many positions are req | uired fo | r the project? | Exclude o | asual/seasc | nal employ | rees) | | | | · | |
| Breakdown of po | ositions(| s) | | | | | | | thorized in ate Budget | New Positions Required | Total |
| Paid for out of federal funds | S | | | | | | | | | 0.0 | 0.0 |
| Paid for out of General Fun | ds | | | | | | | | | 0.0 | 0.0 |
| Paid for out of state special | l funds | | | | | | | | | 0.0 | 0.0 |
| Paid for out of bond/local/ot | ther fund | ds | | | | | | | | 0.0 | 0.0 |
| TOTAL | | | | | | | | | 0.0 | 0.0 | 0.0 |
| 25. PLEASE NOTE: On a separ other) and the full-time equi grant funds positions within grant please indicate the | ivalent fo other d | or positions i lepartments, | required. Pla | ase identify t | the new pos | itions by plac | cing an aster | risk before t | he positon title. If | nl, this | |



National Clean Diesel Campaign

AMERICAN RECOVERY AND REINVESTMENT ACT of 2009

FUNDING FOR NATIONAL CLEAN DIESEL GRANT PROGRAM

WORK PLAN NARRATIVE AND BUDGET NARRATIVE TEMPLATE

State of Delaware May 4, 2009

Project Title: State and Local Agency Diesel Retrofit Program

| Organization name | Delaware Department of Natural Resources and Environm Control | nental |
|-------------------|---|--------|
| Project manager | Philip Wheeler | |
| Address | 156 South State Street, Dover, Delaware 19901 | |
| Phone | 302/ 739-9402 | |
| Fax | 302/ 739-3106 | |
| Email | Philip.Wheeler@state.de.us | |

Project Budget

| EPA allocation | \$4,625,000 |
|----------------|-------------|
| Total | \$4,625,000 |

Project Period

All work plans for the Recovery Act Funding for the State Clean Diesel Grant Program will run from the date of award through September 30, 2010. All activities in this work plan will focus on stimulating the American economy, preserving and/or creating jobs, and reducing diesel emissions.

Summary Statement

There will be four different municipal and state agencies and one school district participating in diesel retrofits projects in this grant application. The City of Dover has 11 vehicles and the City of Newark has 19 on-road vehicles. The Department of Natural Resources and Environmental Control has 7 on road vehicles and 26 off road vehicles and the Department of Transportation has 303 vehicles. The Colonial School District in New Castle, Delaware will have 60 vehicles retrofitted.

SCOPE OF WORK

Project Description

The following technology options will implemented in this work plan:

Retrofit Technologies:

Exhaust Controls:

Exhaust Controls include pollution control devices installed in the exhaust system (such as oxidation catalysts and particulate matter filters), or systems that include crankcase emission control (like a closed crankcase filtration system).

For this project both active and passive diesel particulate filters (DPF) will be installed on all the applicable vehicles from the participating agencies, while diesel oxidation catalysts will be installed on those vehicles that have other issues related to installation or engine size such as the off-road DNREC equipment. The Colonial School District will have passive DPF or DOC installed and closed crankcase ventilation equipment. The cost range for passive and active DPF is \$8,000 to \$12,000. Because the subject vehicles have not been temperature data logged yet, an average cost of \$10,000 will be assigned to each on-highway vehicle DPF. All of the exhaust controls purchased will be either EPA or CARB verified equipment.

Fleets that will be impacted with the technologies (check all that apply):

| X | School Buses |
|---|--|
| | Transit Buses |
| | Medium Duty Truck |
| X | Heavy Duty Truck |
| | Marine Engine |
| | Locomotive |
| Χ | Construction |
| | Cargo Handling |
| | Agriculture |
| | Mining |
| | Energy production |
| X | other: (please describe) – 26 Non-road DNREC State Park vehicles |

See attached spread sheet with vehicle information

Administrative Activities

A portion of the grant will be allocated to administer the projects. One full time equivalent position will be needed to manage the purchase, installation, and maintenance of the retrofit equipment. Another FTE for legal review of the necessary request for proposal and contract for performing filter maintenance for the school district will also be charged to the grant.

The project administration of the grant will include the development of the purchase orders, management of the competitive bid and contract process, development of the installation and maintenance schedule, oversight of the performance of the vendors and contractors and performance of evaluation reports to EPA on the overall projects.

Travel expenses are anticipated. Visits to existing sites are needed during the installation phase of the projects. Supplies will include outreach and training materials as well as specially designed decals that will be prominently displayed on each vehicle retrofitted.

Below is a summary of the administrative activities that are funded under this work plan.

Delaware is anticipating spending 1% on administrative activities.

Time Line for the Diesel Retrofit Project -

2009

May – Data logging performed by vendor who has an existing contract with the Department to ascertain applicability of diesel particulate filters and diesel oxidation filters to the above mentioned agencies fleet.

June – Purchase order sent to vendor for the applicable number of diesel particulate filters, diesel oxidation catalysts and closed crankcase ventilation system.

July – Vendor orders diesel particulate filters, diesel oxidation catalysts and closed crankcase ventilation system from manufacturer. Lead time could be up to 10 weeks before delivery.

September – Vendor works with fleet manager for installation time of filters with a down time of 8 hours for each heavy duty vehicle. Diesel oxidation catalysts will have a shorter installation time.

October- December - Retrofits are completed

Project Budget

| Budget Category | EPA Allocation |
|----------------------|----------------|
| 1. Personnel | 41,415 |
| 2. Fringe Benefits | 17,216 |
| 3. Travel | 1,898 |
| 4. Supplies | 7,890 |
| 5. Equipment | 4,519,920 |
| 6. Contractual | 9,330 |
| 7. Other (Audit) | 13,875 |
| Total Direct Charges | \$4,611,544 |
| | |
| 8.Indirect Charges | 13,456 |
| Total | \$4,625,000 |

Explanation of Budget Framework

Administrative Costs

| Category | EPA |
|------------------|----------|
| Personnel | \$41,415 |
| Fringe | 17,440 |
| Travel | 1,898 |
| Supplies | 7,890 |
| Total | \$68,643 |
| % of Total Grant | 2% |

1. Personnel

| Category | EPA Allocation |
|--|----------------|
| Project Manager (Retrofits) @ \$27.14/hr x 1,500 hours | \$ 40,710 |
| Legal Review of RFP and Contract @ \$47/hr x 15 hrs | \$ 705 |

2. Fringe Benefits

Fringe benefit costs are those costs for personnel employment other than the employees' direct income (i.e., employer's portion of FICA insurance, retirement, sick leave, holiday pay, and vacation cost) that will be paid by the grantee. Provide the total cost of fringe benefits unless treated as part of an approved indirect cost rate. Provide break-down of amounts and percentages that comprised fringe benefit costs, such as health insurance, FICA, retirement insurance, etc. Indicate all mandated and voluntary benefits to be supplemented with these funds

| Category | EPA Allocation |
|---|-------------------|
| Health Insurance – 2 FTE @ \$429 /mo x 12 mos | \$ 5,144 |
| Other fringes* 1- FTE @ \$1,010/mo x12 mos | \$ 12,117 |
| Other fringes* 1- FTE @ \$12/hr x 15 hrs | \$ 179 |

^{*}includes Unemployment Ins, Pension, Workers Comp, FICA and Medicare

3. Travel

| Category | EPA |
|--|-------|
| Site visit | |
| Local Travel State Vehicle Rental – 27 days x \$34/day | \$946 |
| Meeting | |
| Local Travel State Vehicle Rental – 28 days x \$34/day | \$952 |

4. Supplies

| Category | EPA |
|--|---------|
| Training supplies for equipment maintenance | \$3450 |
| 394 - 11x17 clean air decals for agency vehicles @ \$10 each | \$3.940 |
| Copying and postage costs | \$500 |

5. EquipmentProject details of the budget for the four governmental agencies and one school district.

| | ···· | Diesel Vehi | cle Retrofit | | | |
|-------------------------|---|--|--------------|------------|------------|-------------|
| 1 | /Equipment cription | Emission Control Device | Quantity | Labor | Unit Price | Extended |
| Heavy on- vehicle | duty diesel highway es including ool buses | Passive/Active Diesel Particulate Filters | 394 | | \$10,000 | \$3,940,000 |
| Ins | tallation | / | ٠ | \$105/hour | | 298,200 |
| ł . | l vehicles and uipment | Diesel Oxidation Catalyst | 26 | | \$1,000 | 26,000 |
| Ins | tallation | | | \$105/hour | | 10,920 |
| Sch | ool buses | Closed Crankcase Ventilation System | 57 | | \$800 | 45,600 |
| Ins | tallation | | | \$105/hour | | 50,400 |
| | | Particulate Filter Cleaning Machine | 3 | | \$12,000 | 48,000 |
| <u> </u> | | Spare Particulate filters | 12 | | \$6,000 | 72,000 |
| | | Spare CCV filters | 360 | | \$80 | 28,800 |
| | | Total Equipment Budget | | | | \$4,519,920 |

6. Contractual

| Category | EPA |
|--|---------|
| Contractor: First year DPF and CCV maintenance | 40.000 |
| service for 16 school buses and 6 DNREC vehicles (\$105/hr *4 hours per bus) | \$9,330 |

Delaware - Request for Proposal Procedures

All solicitation notices are published in the Delaware Capital Review, as required by law. Bidders are given 30 days to submit their proposals from the time the solicitation is published. A pre-bid meeting is required to clarify any questions about the solicitation for the bidders prior to the opening of the bids.

All Bids and Proposals shall be delivered in sealed envelopes and shall bear the name and address of the bidder, as well as the designation of the contract, on the outside envelope. Proposals forwarded by U.S. Mail shall be sent first class. All documents forwarded by U.S. Mail, delivery service, or hand delivered must be delivered to the address listed in the bid documents.

All bids and proposals will be accepted on or before the time and place set in the specifications. Bidder bears the risk of delays in delivery. Proposals received after the time set for public opening will be returned unopened.

7. Other

| Category | EPA |
|---------------------------------|----------|
| Audit of Grant .003*\$4,625,000 | \$13,875 |

- 8. <u>Direct Charges: Categories 1-7:</u> \$4,611,544
- 9. Indirect Charges (32.49% of personnel salaries): \$13,456

Indirect costs result from allocation of a grouping of administrative costs which are not easily identified as a direct cost.

Program Priorities

Health

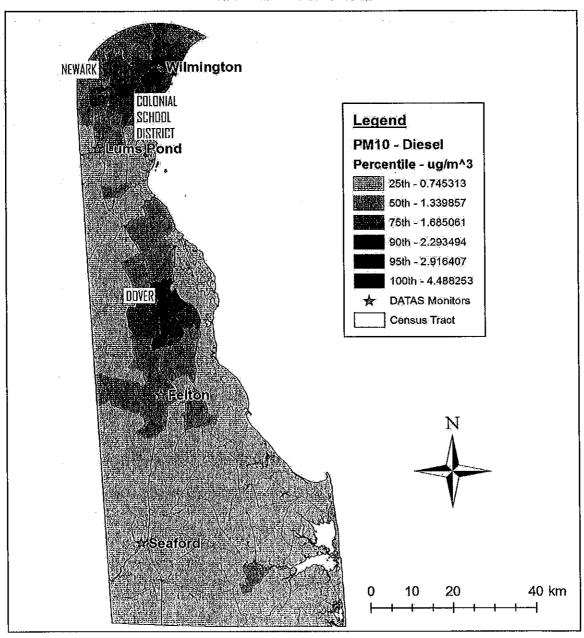
In one year Delaware intends to retrofit with diesel particulate filters three hundred and thirty seven heavy duty trucks that operate for the cities of Dover and Newark, the Department of Natural Resources and Environmental Control (DNREC) and the Department of Transportation. Twenty-six non-highway vehicles owned by DNREC will be retrofitted with diesel oxidation

catalysts. Finally, fifty-seven school buses in New Castle County will be retrofitted with diesel particulate filters and closed crankcase filters owned by the Colonial school district. The major benefit achieved from these retrofits will be the reduction of fine particulate matter, although there will be additional reductions in volatile organics and carbon monoxide. Estimates in emission reductions of these pollutants from baseline levels are expected to be approximately 20 tons per year of fine particulate matter, 64 tons per year of hydrocarbons and 208 tons per year of carbon monoxide. Health benefits to the school children and the communities in Wilmington may be realized in combination with other diesel emission reduction technology found in new truck and bus models. The incremental benefits of this project may be seen in fewer lung diseases such as asthma and emphysema as well as fewer emergency room visits during poor air quality days.

| Anticipa | ted Outputs and Outcomes | |
|------------|--|---|
| Activities | Outputs | Short, medium, and long-term Outcomes |
| | Emission control technology installed = DPFs and CCV on 57 school buses | Short-term: Successful installation of 57 DPFs Medium-term: Emissions Reduction = Reduce 6.9 tons/year of PM, , 27.1 tons/year of HC, 75.5 tons/year of CO |
| | Emission control technology installed = DPFs on 337 State and City utility vehicles. | Short-term: Successful installation of 337 DPFs Medium-term: Emissions Reduction = Reduce 9.4 tons/year of PM, , 29.8 tons/year of HC, 100.7 tons/year of CO |
| | Emission control technology installed = DOCs on 26 State non- road vehicles | Short-term: Successful installation of 26 DOCs Medium-term: Emissions Reduction = Reduce 3.6 tons/year of PM, , 7.4 tons/year of HC, 30.5 tons/year of CO |
| | All of the above | Long-term: Health Effects = Reduce asthma in children. Increase lung function and decrease cardiopulmonary disease Reduction of premature mortality rate. |

Below is a map of Delaware designating areas of various levels of concentrations of diesel particulate matter. The majority of vehicles that will be retrofitted in this project will operate cleaner in the areas designated as high levels of ambient concentrations of diesel particulate matter.

Modeled Ambient Concentrations Averaged by Census Tract PM10 - Diesel



"This map is taken from the 2003 Delaware Air Toxics Assessment Study (DATAS). DATAS assessment is for calendar year 2003 and includes the following components – monitoring, emissions inventory, modelling and risk assessment. DATAS modeling accounts for the assessment of a number of air toxic pollutants including the diesel particulate matter (DPM). DATAS estimates the

ambient DPM modeled concentrations by an integrated modeling approach that accounts for regional transport and spatially resolved concentrations due to local emissions. The former is obtained from the regional-scale modeling exercise and the latter from the local-scale modeling. Regional-scale modeling also accounts for the secondary component for some compounds, which is produced due to photochemistry. The DATAS modeled ambient DPM concentrations at the census tract level are displayed in the map. The concentrations are averaged over the census tracts and are expressed in terms of 25, 50, 75, 90, 95 and 100 percentiles; the corresponding concentrations can also be seen in the legend. The five DATAS monitoring locations are also displayed."

Air Pollution Produced By the Diesel Engines

The State of Delaware has been designated as non-attainment for the 8 hour ozone standard in all three counties. New Castle County is in non-attainment for the annual National Ambient Air Quality Standards for fine particulate matter and monitoring non-attainment for the daily standard for fine particulate matter. On-road diesel emissions contribute significantly to two major pollutants impacting air quality. A diesel truck engine's emissions consist mostly of particulate matter and nitrogen oxides, along with other toxic gases in smaller amounts.

The last inventory of air pollutants performed by the State of Delaware was completed for the calendar year of 2005. The tables below compare diesel emissions (NOx and PM 2.5) of class 6 and 7 trucks which are large portion of the fleet designated for retrofitting.

State Wide Emission Inventory (2005) NOx and PM 2.5 On-road Source Emissions (Tons per Year)

| | State V | Wide On-road Emissions | l Diesel |
|------------------|-----------|---------------------------|------------------|
| Air Pollutant | Class 6/7 | All Diesel Vehicles | Percent of Total |
| NOx | 101 | 2,929 | 4% |
| PM 2.5 | 3 | 63 | 5% |

Program Experience:

Project Manager:

The project will be managed by Philip Wheeler, Planner IV, working for the Delaware Department of Natural Resources and Environmental Control. Previously, he has prepared requests for proposals for providing diesel particulate filters and closed crankcase filter equipment for the State of Delaware. The equipment was later installed by the winning bidder, Cummins Power Systems on 71 school buses for the Brandywine and Red Clay school districts in New Castle County. Twelve transit buses for the Delaware Transit Corporation were also outfitted with particulate filters. Mr. Wheeler prepared the RFP, reviewed the proposals and finalized the contract with Cummins. He also prepared the purchase orders for the equipment for DTC and Red Clay Schools. During the installation he monitored its progress to its finality. In 2008 he prepared an approved application for DERA State Grant funding and is working with the Port of Wilmington for retrofits on port equipment to fulfill the goals of the grant.

Mr. Wheeler has 15 years of air quality experience in the mobile emission sector, writing reports and modeling emissions.

Kevin Benson will be the Cummins Power Systems Emission Solutions/Retrofit Sales representative for the project. He has been with CPSI since May of 2000 and Retrofit Sales Manager since September of 2003. During this time he has been involved with approximately 300 diesel particulate filter (CRT/CCRT) and 200 Diesel Oxidation Catalyst tum key operations. Turn key meaning laying the ground work per retrofit project, fleet assessment, data logging/engine mapping, choosing the correct retrofit technology per fleet profile, design, pricing, bidding, ordering, installation, installation scheduling, training, and report filing per customers request. CPSI utilizes Cummins Inc. certified factory trained road technicians to perform retrofit installations at the customer facility.

Cummins has a contract with the DNREC to provide diesel emission reduction equipment for this project.

CPSI has been involved with sales, service, parts, installation and training of retrofit emission reduction technologies with the following entities:

Company/Agency

MTA

SEPTA DART

Washington Metro

Unionville-Chadds Ford SID Garnett Valley SID

Upper Darby SID North Penn SID SPC Corporation

Montgomery County Schools City of Baltimore Fire Dept.

Fairfax Connector

City of Annapolis Fire Dept.

Montgomery County Fleet Maint.

Montgomery County Fire Dept.

MDETARSA

Clean Air Council of PA.

Retrofit Technology

DPF (CCRT) with installation, spare filters,

and training

Spare DPF filters (CRT)

Spare DPF filters (CRT), filter cleaning, and

training

DPF filters (CRT), installation, filter

cleaning, and training

DPF (CRT), installation, and training DPF (CCRT), installation, and training DPF (CCRT) & DOC's, and training

DOC's, with installation

DOC's, training

DOC's, with Installation

DOC's

DPF (CRT), installation, and training

DOC with installation DOC with Installation

DOC with installation

DOC with installation

DOC with installation

Data Collection

The proposed project does not involve environmentally related measurements or data generations that would need quality assurance and quality control plans and procedures as pursuant to 40 CFR 31.45.

Reporting

The State Program understands that reporting will at least be quarterly and additional reporting may be required for these special Recovery Act grants. Reporting requirements will be detailed in the grant Terms and Conditions.

Other

There are no cash or in-kind matches to the grant funding. However, the municipalities and the Department of Transportation will be expending their own resources to maintain the diesel particulate filters by cleaning them on an annual basis. The filters on the school district vehicles and vehicles owned by the Department of Natural Resources and Environmental Control will be maintained with funds in an account managed by DNREC. After the first year of the grant, filter cleaning and CCV filter changes will be paid for by DNREC.

SIGNATURES

Required signatures by the Department's fiscal officer are found on the documents accompanied by this work plan.

Support Agency Cooperative Agreement - Delaware City Budget Detail Salary Fringe Information April 1, 2009 - March 31, 2012

| | | | dhosen. | |
|-----------------------------------|---|-------|---|--|
| | | | the coverage | |
| | | | pased on | |
| | | | ch employe | |
| % FTE indirects 32.49% | 36,028 \$ 8,598 928 32% 36,956 \$ 8,598 | | erent for ea | |
| % FTE Salary HI & Fringe | υ υ υ υ υ υ υ υ υ υ υ υ υ υ υ υ υ υ υ | | ince may be dif | |
| % FTE Fringe & Health Ins.* | 9,565 | | f health insur | |
| %FTE Fringe | 2,833 \$ 6,732 \$ 45 \$ 179 \$ \$ 2,878 \$ 6,911 \$ | | The cost | |
| % FTE Health ins. | \$ 2,833 \$ 45 \$ 2,878 | | each employee | |
| Annual Fringe 25.44% | \$ 13.464 \$ 22.390 \$ 35,854 | | h insurance for | |
| Annual Health Ins | \$ 5.665 \$ 5,665 \$ 11,330 | | al cost of healt | |
| %FTE Salary | \$ 26,463 \$ 704 \$ 27,167 | | dding the actu | |
| Annual Salary | \$ 52,926 \$ 88,012 | \$ 47 | ies, and then a | |
| % FTE On Project | 0.500 | | r all employe | |
| Position | 85945 | | of 25.44% fc | |
| Employee Name | Wheeler Satterfield | | sing a base rate | |
| Position Tale | Project manager Legal Review FEDERAL TOTAL | | The fringe amount is calculated using a base rate of 25.44% for all employees, and then adding the actual cost of health insurance for each employee. The cost of health insurance may be different for each employee based on the coverage chosen. | |

| Application for Fede | eral Assistance SF-42 | 4 | Version | n 02 |
|---|----------------------------|---|---|---------------|
| * 1. Type of Submiss Preapplication Application Changed / Corrected | | * 2. Type of Application New Continuation Revision | * If Revision, select appropriate letter(s): * Other (Specify) | |
| * 3. Date Received: | | 4. Applicant Identifier: | | |
| Completed by Grants | gov upon submission | | | |
| 5a. Federal Entity Ide | entifier: | | * 5b. Federal Award Identifier: | |
| State Use Only: | | | | |
| 6. Date Received by | State: | 7. State Applicatio | n Identifier: | |
| 8. APPLICANT II | NFORMATION: | | | |
| * a. Legal Name: | State of Delaware | | | |
| * b. Employer/Taxpa | yer Indentification Number | er (EIN/TIN): | * c. Organizational DUNS: | |
| 51-6000279 | | | 10-400-9399 | - |
| d. Address: | | | | |
| * Street1: | 156 South State St | | | |
| Street2: | | | | |
| * City: | Dover | | | |
| County: | Kent County | | | |
| * State: | Delaware | | | |
| Province: | | | • | |
| * Country: | USA | | | |
| * Zip / Postal Code: | 19901 | | | |
| e. Organization U | | | | |
| Department Name: | | | Division Name: | |
| Department of I | Natural Resources & En | vironmental Control | Division of Air & Waste Management (3-0335) | |
| f. Name and Cont | act Information of Pe | rson to be Contacted on M | atters Involving this Application: | |
| Prefix: | Mr | * First Name: | Philip | $\overline{}$ |
| Middle Name: | Andrew | |] | |
| * Last Name: | Wheeler | | | \neg |
| Suffix: | Wildelei |] | | |
| Sullix. | | <u> </u> | | |
| Title: | Planner IV | | | |
| Organization Affiliati | on: State of Delawa | are | | |
| * Telephone Number | ar: 302/739-9402 | | Fax Number: 302/739-3106 | |
| * Email: | Philip.Whele | r@state.de.us | | |

| Appl | ication for Federal Assistance SF-424 | Version 02 |
|-------|--|------------|
| 9. | Гуре of Applicant 1: Select Applicant Type: | |
| | A. State Government | |
| Туре | of Applicant 1: Select Applicant Type: | |
| | | |
| Туре | of Applicant 1: Select Applicant Type: | |
| | | |
| * OH | er (Specify) | |
| " | A-L | |
| | | |
| * 10 | Name of Federal Agency: | |
| | U. S. EPA | |
| 11. | Catalog of Federal Domestic Assistance Number: | * * * · |
| | | |
| CFE | A Title: 66.039 | |
| | | |
| | | |
| * 12 | t. Funding Opportunity Number: | |
| | EPA-R3-001 | |
| * Tit | le: Recovery Act Funding for NationalClean Diesel Grant Progam | |
| | | |
| | | |
| | | |
| | | |
| 13 | Competition Identification Number: | |
| '3. ' | Composition registration regist | |
| * Tit | le: N/A | |
| " | IVA | |
| | | |
| | | |
| | | |
| | | |
| 14. | Areas Affected by Project (Cities, Counties, States, etc.): | |
|] | State of Delaware all counties | |
| | | |
| | | |
| | | |
| | | |
| 15. | Descriptive Title of Applicant's Project: | |
| | Diesel retrofit of 57 school buses with particulate filters and closed crankcase filters | |
| | Diesel retrofit of 337 municipal and state vehicles with particulate filters | |
| | Diesel reetrofits of 26 DNREC state park vehicles with diesel oxidation catalysts | |
| | | |
| | | |
| Atta | ch supporting documents as specified in agency instructions. | |
| | Add:Allachmetris Delete:Altachments ViewAllachments | |

| Application for Fede | eral Assistance SF-424 | | Version | 02 |
|--|--|---------------------------------------|--|----|
| 16. Congressional | Districts of: Fir | rst Congressional District | | |
| * a. Applicant | Department of Natural Resources | and Environment b.Program/Project | State Clean Diesel Grant | l |
| Attach an additional li | st of Program/Project Congressional D | Districts if needed. | 24 | |
| | | A A A A A A A A A A A A A A A A A A A | | |
| 17. Proposed Proje | ct: State Clean Diesel Grant | | | |
| * a. Start Date: | 6/1/2009 | b. End Date: | 9/30/2010 | |
| 18. Estimated Fund | ding (\$): | | | _ |
| * a. Federal | \$ 4,625,000 | | 3 | |
| * b. Applicant | | | | |
| * c. State | | | | |
| * d. Local | | | | |
| * e. Other | | | | |
| * f. Program Income | | | | |
| * g. TOTAL | \$ 4,625,000 | | ; | |
| * 19. Is Application | Subject to Review By State Und | er Executive Order 12372 Proce | ess? | |
| | as made available to the State under the Execut | | | |
| _ | t to E. O. 12372 but has not been selected by th | ne State for review. | | |
| L., c. Program is not cov | ered by E. O. 12372. | | - | |
| | nt Delinquent On Any Federal De | ebt? (If "Yes", provide explanat | ion.) | |
| Yes | ☑ No | | | |
| | | | t of certifications** and (2) that the statements ovide the required assurances** and agree to | |
| | | | e, fictitious, or fraudulent statements or claims | |
| may subject me | e to criminal, civil, or administra | tive penalties. (U.S. Code, Title | 218, Section 1001) | |
| ✓ ** I AGREE | | | | |
| ** The list of ce specifice instruc | rtifications and assurances, or an i | nternet site where you may obtain | this list, is contained in the announcement or agency | |
| Authorized Repres | | | | |
| - | | | | |
| Prefix: | | First Name: Jean | | |
| Middle Name: | Christina | | | |
| * Last Name: | Haszard | | | |
| Suffix: | | | | |
| Title: | Senior Fiscal Administrative Office | r | | |
| * Telephone Number | 302-739-9903 | Fax Number: | | |
| * Email: | jean.haszard@state.de.us | | | |
| * Signature of Authori | zed Representative: | | * Date Signed: | |

| Appli | ication for Federal Assistance SF-424 | Version 02 |
|-------|--|------------|
| * Ap | oplicant Federal Debt Delinquency Explanation | |
| The | following field should contain an explanation if the Applicant organization is deliquent on any Federal Debt. Maximum number | of |
| cha | racters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of | space. |
| | $_{ m H}$ | |
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| | O NOLOES | SECTION CENONFEDERAL RESOURCES | SOURCES | | |
|------------------------------------|--------------------|--|-----------------------|--------------------------------|--------------|
| (a) Grant Program | | (b) Applicant | (c) State | (d) Other Sources | (e) TOTALS |
| 8. National Clean Diesel Program | | 0 | \$ | - \$ | - |
| .6 | | | | | - \$ |
| 10. | | | | | ₩ |
| 11. | | | | | \$ |
| 12. TOTALS (sum of lines 8-11) | | * | \$ | - \$ | - |
| | SEGITIONID: | GITIONID-FOREGASHEDI GASHINEEDS | SINEEDS | | |
| | Total for 1st Year | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| 13. Federal | \$ 4,625,000 | \$ 1,156,250 | \$ 1,156,250 | \$ 1,156,250 | \$ 1,156,250 |
| 14. Non-Federal | \$ | | | | |
| 15. TOTAL (sum of lines 13 and 14) | \$ 4,625,000 | \$ 1,156,250 | \$ 1,156,250 | \$ 1,156,250 | \$ 1,156,250 |
| MINSTILLE SECTION ET BUDGETIES IN | FICESTIVIVIES DE | ATIESIO E REDERALE (RUNDS IN EED EOR BALLANGE OFFRAGIEGI). | ABDED ROR BALAN | CE OF PROJECT | |
| (a) Grant Program N/A | | | FUTURE FUNDIN | FUTURE FUNDING PERIODS (Years) | - |
| | | (b) First | (c) Second | (d) Third | (e) Fourth |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. TOTALS (sum of lines 16-19) | | · · | - \$ | * | - |
| | SECTIONE | TIONIE OTHER BUDGET INFORMATION | ORMATION: | | |
| 21. Direct Charges: | | \$4,611,544 | 22. Indirect Charges: | ↔ | 13,456 |
| 23. Remarks: | | | | | |

Authorized for Local Reproduction

J

Revised March 2009

U. S. Environmental Protection Agency Applicant Fleet Description Spreadsheet

| ganization/Name | FirstName | LastName | JobTitle | Address | Δįς | State | EmailAddress | ZpCode | OfficePhone | OfficePhoneExt |
|-----------------|-----------|----------|-----------|------------------|-------|-------|----------------|-----------|-------------|----------------|
| | | | | | | | philip.wheeler | | | |
| REC. | Philip | Wheeler | Planer IV | 156 South Street | Dover | 병 | @state.de.us | 19901 302 | 2/739-9437 | |

| | | | | | | | prilip.wneeler | | | | |
|--------------------------------|---------------|-------------|------------|------------------------------|----------------|-------|----------------|----------------|--------------------|--------|-------------------|
| DNREC | Philip | Wheeler | Planner IV | Pilanner IV 156 South Street | Dover | DE | @state.de.us | 19901 | 19901 302/739-9437 | | |
| | | | | | 8 | | | | | | |
| Section 2: Project Information | # Information | | | | | | | | | | 31 63 63 |
| | | | Number of | | | | | Funding Amount | Additional Funding | | Senerit of Public |
| ProjectName | Entity | TargetFleet | Vehicles | ð | County | State | Region | Requested | Source | Amount | Fleet |
| DERA Diesel | | | | | New Castle and | | | | | | |
| | DNREC | Other | 420 | | Kent Counties | 出 | e | | | | yes |

| Section 3: Vehicle Information: | le Information: | | | | | | | | | | | | |
|---------------------------------|-----------------|----------------------------|--------------|---------------|--------------|-------------------|---------------|--|-----------------------|---------------------|--------------|--------------|------------|
| VehicleType | TargetFleet | Vehicle Class VehicleCount | VehicleCount | Engine Make | Engine Modet | Engine Model Year | Retrofit Year | Technology | Current Fuel Type | Amount of Fuel Used | Annual Mites | Idling Hours | Horsepower |
| On Highway | Other | Class 6 | | Cummins | 275 | 1994 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 175 | 2121 | 25% | 275 |
| On Highway | Other | Class 5 | - | Ford | 7.3 | 2000 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 392 | 3407 | 2% | 275 |
| On Highway | Other | Class 5 | 0 | 3 Duramax | 6.6 | 2005 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 2223 | 19904 | 25% | 300 |
| On Highway | Utility Vehicle | Class 6 | 1 | INTERNATIONAL | DT466E | 1999 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 1417 | 9419 | | 260 |
| On Highway | Utility Vehicle | Class 7 | 1 | INTERNATIONAL | DT466 | 2005 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 2600 | 10980 | | 266 |
| On Highway | Utility Vehicle | Class 8A | 1 | INTERNATIONAL | DT466 | 2004 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 1631 | 7171 | 1 | 260 |
| On Highway | Utility Vehicle | Class 8A | 1 | INTERNATIONAL | DT466 | 2005 | 2009 | 2009 Diesel Particulate Filter | Dieset (ULSD), 15 ppm | 528 | 11080 | | 260 |
| On Highway | Utility Vehicle | Class 7 | - Ver | INTERNATIONAL | DT466 | 2004 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 1738 | 7859 | | 260 |
| On Highway | Utility Vehicle | Class 7 | | INTERNATIONAL | T444E | 2001 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 2014 | 7106 | | 230 |
| On Highway | Utility Vehicle | Class 6 | 1 | INTERNATIONAL | DT466 | 2006 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 1993 | 10348 | | 260 |
| On Highway | Refuse Hauler | Class 8A | 1 | INTERNATIONAL | DT466 | 2006 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 1575 | 5643 | | 560 |
| On Highway | Refuse Hauler | Class 8A | - | INTERNATIONAL | DT466 | 2004 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 3123 | 7817 | | 560 |
| On Highway | Refuse Hauler | Class 8A | 1 | INTERNATIONAL | HT570 | 2006 | 2009 | 2009 Diesel Particulate Filter | Diesel (ULSD), 15 ppm | 4484 | - 7834 | | 295 |
| On Highway | Refuse Hauler | Class 8A | 1 | CUMMINS | V285MSI | 2005 | 2009 | 2009 Diesel Particulate Filter | Dieseł (ULSD), 15 ppm | 3136 | 11183 | | 370 |
| On Highway | Other | Class 7 | 1 | CUMMINS | ISB46242068 | 2003 | 2009 | 2009 Diesel Particulate Fitter Diesel (ULSD), 15 ppm | Diesel (ULSD), 15 ppm | 2552 | 11553 | | 250 |

5/4/2009

Revised March 2009

Continuing Grants NOTICE OF PLAN TO FILE GRANT APPLICATION

(Cover sheet to be provided with each proposed grant.)

| Date sent to GVVF | | _Due to Feat | | | | | • | 2009 |
|--|---|--------------|---------------|-------------|---------------|--------------|-----------|------|
| Grant Project: Beginni | ng date: | 6/1/2009 |) | | | Ending date: | 9/30/2010 | |
| | | | · · · · · · · | | | | | |
| Current | \$4,625,000 | Prior Year | 1, | | | 3 | | |
| Request | | <u> </u> | n/a | A 1415.0 | 050 | | A A POLIT | |
| SAI# | | | DIV: | AWM | SEC: | | MBU: | |
| Grant Title: Clean I | Diesel National Gra | ant | | | | | | |
| Compare Grant Objec | tives to Department | Priorities. | | | | | | |
| USE OF ADDITIONAL Salaries & OEC's - E | | | FEDERAL | . FUNDS | | <u>-</u> | | |
| • | nent, Supplies, Co | - | ther - Esti | imate | | | | |
| | | l/Existing | | | | | | |
| | | | | | | | | |
| POSITION RELATED New/Delete - Position | | mplement cha | | ES | N | О <u>х</u> | | |
| STATE MATCH REQ | JIRED % | | | GF\$: 0 | | ASF\$: | | |
| | Inkind Eli | gible | | | Yes | | <u>No</u> | |
| | | State Matc | h Availab | le | <u>Yes</u> | | No | |
| | | | | | | | | |
| MA IOD DIIDCHASES | S: (Required over \$ | 10 000) /Eau | | | | | | |
| capacity, etc.): Diesel | | | ipment, la | ind, compu | ters, softwar | e, server | | : |
| capacity, etc.): Diesel Diesel | Particulate Filters | 3 | ipment, la | nd, compu | | e, server | | : |
| capacity, etc.): Diesel Diesel SUPPORT NEEDS: | Particulate Filters | | lipment, la | ind, compu | Existing | e, server | | : |
| capacity, etc.): Diesel Diesel SUPPORT NEEDS: Office Space: | Particulate Filters Oxidation Catalysts | 3 | lipment, la | nd, compu | | e, server | | |
| capacity, etc.): Diesel Diesel SUPPORT NEEDS: | Particulate Filters Oxidation Catalysts | 3 | lipment, la | nd, compu | | e, server | | |